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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/119,626	07/21/98	GOTOH	M 0083-0865-2

EXAMINER

022850 MMC2/0806
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ART UNIT	PAPER NUMBER
2611	

DATE MAILED:

08/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)

1- File Copy

*U.S. GPO: 2000-473-000/44602

Office Action Summary

Application No.	Applicant(s)
9/119,624	
Examiner	**Group Art Unit**
Cuneo	2841

—The MAILING DATE of this communication appears on th cover sheet beneath th correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 7/10/01.

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 7, 9, 13-15 is/are pending in the application.

Of the above claim(s) 15 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 7, 9, 13, 14 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☒ The proposed drawing correction, filed on 12/22/00 is ☒ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Atta hment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Pat nt Application, PTO-152

☐ Notice of Draftsperson's Pat nt Drawing Review, PTO-948

☐ Other _____

Office Acti n Summary

DETAILED ACTION

Treatment of Claims Based on Prior Art

1. 35 USC 102 includes the following sections which state:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2. Claims 7, 9 are rejected under 35 USC 102(b) as being anticipated by Japanese abstract 07263849 to Yusuke.

Claim 7: Yusuke a board (3) with layer (4), the layer having a pattern with a bonding area (5). Notch or recess (8) is proximate the bonding area and does not extend within it. The notch or recess narrows the pattern to form a barrow pattern part.

Claim 9: The substrate of the board (3) is the main body, and the pattern is narrowed at the bonding area.

3. 35 USC 103(a) states:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Obviousness under 35 USC 103(a) is determined against a background established by the factual inquires set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), which are summarized in items 1-4 below.

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 USC 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 USC 103© and potential 35 USC 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 13-14 are rejected under 35 USC 103(a) as being unpatentable over Applicant's figure 11 and Mims (US 3893223).

Figure 11 of the present application disclose all of the elements of claims 13-14 except for two grooves proximate a bonding areas to place the area therebetween. Since applicant has elected species a1, the grooves are interpreted to mean isolated notches or recesses.

Mims teaches to place grooves (with the conductive material all the way removed) on either side of a bonding area where a row of bonding areas is being ultrasonically attached. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to place grooves between the bonding areas of figure 11, as taught by Mims, to prevent "breaking an adjacent and previously made weld," Mims at column 2, line 54. Mims also teaches that the grooves should extend perpendicular to the direction of the vibration.

Response to Arguments

6. Applicant's arguments have been carefully reviewed, but are not persuasive.

Applicant argues that Yusuke does not teach a notch or recess. The notch or recess (8) is clearly shown in the figure. Applicant also states that the joining area is larger in width than the wiring. This is moot, because such a feature is not claimed. The claims recite that the notch narrows the conductive pattern. The joining area is part of the conductive pattern of Yusuke, and it is certainly narrower (smaller in width) with the notch than it would have been had the notch been omitted.

Applicant's arguments that Yusuke is concerned with a different problem are not found persuasive, because the structure that the claims of the present application set forth is the same as the structure that Yusuke discloses. The motivation behind the invention cannot distinguish identical structures.

Applicant argues that the Mims reference is not applicable to the present invention because it is concerned with welding. This argument has been raised and responded to in paper # 24 in section 9, and noted above in section 5. As stated there, Mims specifically teaches placement of the grooves for reasons that applicant places the grooves. Applicant states that use of Mims is hindsight and that there is no motivation to combine Mims with the board technology. Examiner notes that Mims teaches the same problem of breaking adjacent bonds and placement of grooves for curing this problem. Therefore, examiner believes that Mims explicitly sets forth both motivation and suggestion to use the recesses in multiple bonding configurations.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Closing

8. Any inquiries related to the examination of this application should be directed to Ex. K. Cuneo at (703) 308-1233 or her supervisor Ex. J Gaffin at (703) 308-3301. Inquiries of a general nature should be directed to the receptionist of Group 2800 at (703) 308-0956. The fax numbers for Group 2800 are (703) 305-7722 and 7724.

K. Cuneo
Patent Examiner Group 2841
August 5, 2001